

CLAIMS

1. A method for verifying an optical connection, said method comprising:

generating an optical verification signal, said optical verification signal
5 comprising a plurality of signals having distinct colors, wherein magnitudes of said
distinct color signals encode a connection identifier; and

transmitting said optical verification signal via a first end of a cord.
2. The method of claim 1 further comprising:

10 receiving said data-carrying optical signal via a second end of said cord;

receiving said optical verification signal via said second end of said cord; and

based on said received optical verification signal, decoding said connection
identifier to verify a connection.
- 15 3. The method of claim 1 further comprising:

transmitting a data-carrying optical signal into said first end of said cord.

4. The method of claim 3 further comprising combining said data-carrying optical signal and said optical verification signal for transmission into a common fiber within said cord.

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5. The method of claim 3 wherein said data-carrying optical signal and said optical verification signal are transmitted via distinct fibers within said cord.

6. The method of claim 1 wherein said optical verification signal comprises
10 an RGB signal.

7. The method of claim 1 wherein said optical verification signal comprises a CMY signal.

8. A method for verifying an optical connection, said method comprising:
15 receiving an optical verification signal via a first end of said cord said optical verification signal comprising a plurality of signals having distinct colors, wherein magnitudes of said distinct color signals encode a connection identifier; and

based on said received optical verification signal, decoding said connection identifier to verify a connection.

5 9. The method of claim 8 further comprising:

receiving a data-carrying optical signal via a first end of a cord;

10 10. The method of claim 9 wherein said data-carrying optical signal and said optical verification signal are received via a common fiber of said cord.

11 11. The method of claim 9 wherein said data-carrying optical signal and said optical verification signal are received via distinct fibers of said cord.

12 12. The method of claim 8 further comprising:

15 transmitting white light via said first end of said cord; and

wherein said optical verification signal comprises components of said white light that have been reflected from a second end of said cord.

13. Apparatus for verifying an optical connection, said apparatus comprising:

a light generating block that generates an optical verification signal, said optical verification signal comprising a plurality of signals having distinct colors, wherein
5 magnitudes of said distinct color signals encode a connection identifier; and

a coupler that combines said optical verification signal with a data-carrying optical signal to form a combined signal to inject into a shared fiber.

14. The apparatus of claim 13 wherein said optical verification signal
10 comprises:

an RGB signal.

15. The apparatus of claim 13 wherein said optical verification signal
comprises:

15 a CMY signal.

16. The apparatus of claim 13 wherein said light generating block comprises:

a driver that generates electrical signals indicative of desired transmitted magnitudes of said distinct color signals.

17. The apparatus of claim 16 wherein said light generating block further comprises:

5 an LED device that generates said plurality of signals in response to said electrical signals.

18. The apparatus of claim 17 wherein said LED device comprises an edge LED device.

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19. The apparatus of claim 16 wherein said light generating block further comprises a laser diode device.

20. Apparatus for verifying an optical connection, said apparatus comprising:
15 a light generating block that generates an optical verification signal, said optical verification signal comprising a plurality of signals having distinct colors wherein magnitudes of said distinct color signals encode a connection identifier; and

a connector block that directs said optical verification signal into a first fiber of a cord and directs a data-carrying optical signal into a second fiber of said cord.

21. The apparatus of claim 20 wherein said optical verification signal comprises:

5 an RGB signal.

22. The apparatus of claim 20 wherein said optical verification signal comprises:

10 a CMY signal.

23. The apparatus of claim 20 wherein said light generating block comprises:

a driver that generates electrical signals indicative of desired transmitted magnitudes of said distinct color signals.

15 24. The apparatus of claim 23 wherein said light generating block further comprising:

an LED device that generates said plurality of signals in response to said electrical signals.

25. The apparatus of claim 24 wherein said LED device comprises a surface LED device.

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26. The apparatus of claim 23 wherein said light generating block further comprises a laser diode device.

27. The apparatus of claim 20 further comprising:

10 a light detection block that receives said optical verification signal via a second end of said cord; and

a decoder block that, based on said received optical verification signal, decodes said connection identifier to verify a connection.

15 28. Apparatus for verifying an optical signal, said apparatus comprising:

a light detection block that receives an optical verification signal via a first end of said cord, said optical verification signal comprising a plurality of signals having distinct colors wherein magnitudes of said distinct color signals encode a connection identifier;

and

a decoder block that, based on said received optical verification signal, decodes a connection identifier to verify a connection.

5 29. The apparatus of claim 28 further comprising:

a white light generation block that generates white light to be transmitted via said first end of said cord; and

wherein said optical verification signal comprises components of said white light that have been reflected from a second end of said cord.

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30. The apparatus of claim 28 further comprising:

a splitter that separates said optical verification signal from a data-carrying optical signal that shares a common fiber within said cord with said optical verification signal.

15 31. The apparatus of claim 28 wherein said optical verification signal is received via a first fiber of said cord and a data-carrying optical signal travels via a second fiber of said cord.

32. Apparatus for verifying an optical connection, said apparatus comprising:

means for generating an optical verification signal, said optical verification signal comprising a plurality of signals having distinct colors, wherein magnitudes of said

5 distinct color signals encode a connection identifier; and

means for transmitting said optical verification signal via a first end of a cord.

33. Apparatus for verifying an optical connection, said apparatus comprising:

means for receiving an optical verification signal via a first end of said cord said
10 optical verification signal comprising a plurality of signals having distinct colors, wherein
magnitudes of said distinct color signals encode a connection identifier; and

means for, based on said received optical verification signal, decoding said
connection identifier to verify a connection.

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